Measures of Residential Segregation

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Theory

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Overview

According to Massey and Denton (1988), there are five major dimensions of segregation

- ▶ *Evenness*: spatial distribution of different groups among *units* in a metropolitan area
- ▶ *Exposure*: possibility of interaction between minority and majority group members
- ▶ Concentration: relative amount of physical space occupied by a minority group in the metropolitan area
- ▶ Centralization: how a group spatially located near the center of an urban area
- ▶ Clustering: which areal *units* inhabited by minority members adjoin one another, or cluster, in space

Total of 19 indexes. By default, the majority refers to non-Hispanic Whites.

Focus

- ▶ Dissimilarity index for Evenness: the percentage of population would have change residence to have the same percentage overall
  - ▶ 0.0 (complete integration) to 1.0 (complete segregation)
- ▶ Interaction index for Exposure: probability that a minority person shares a unit area with a majority person
  - ▶ 0.0 (complete segregation) to 1.0 (complete integration)
- ▶ Isolation index for Exposure: probability that a minority person shares a unit area with a minority person
  - ▶ 0.0 (complete integration) to 1.0 (Complete segregation)

Remarks

- ▶ Define the geographic units: in our calculation, we aggregated tract level statistics to reflect county level information
- ▶ When there are only two groups, interaction index and isolation index sum up to 1
- ▶ "Indexes of evenness and exposure are correlated but measure different things: exposure measures depend on the relative sizes of the two groups being compared, while evenness measures do not."
- ▶ Isolation index only require one group, a minority group

Reference

Reference

Massey, Douglas S, and Nancy A Denton. 1988. "The Dimensions of Residential Segregation." *Social Forces* 67 (2): 281–315.